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The Hon. Bette Stephenson, M.D.
Minister

Curriculum Ideas for Teachers
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Discover Ontario Through the Road Map

Revised Edition, 1979

This pamphlet outlines various activities developed from the official road map of Ontario. They are designed to assist students to learn more about the geography of their home province. This is resource material in support of *The Formative Years, Primary and Junior Divisions*.



Near Cavers, Ontario



Introduction

This pamphlet was developed and tested by:

- Ken Braumberger, St. Albert School, Sudbury;
- Doug Foreman, Agincourt Public School, Sudbury;
- Paul Thanase, École Saint-Rémi, Sudbury;
- Donald McGugan, Ontario Ministry of Education, Sudbury.

Revision by Donald McGugan, Ontario Ministry of Education, Sudbury.

The child in the Primary and Junior divisions should be given opportunities to become familiar with the geography and culture of the community, the province, and the country. A systematic study of the Ontario Road Map will enable children to use the map to find information such as distances between cities, the populations of towns and villages, the best route to take on a holiday trip, the locations of provincial parks and airports, and the direction from one point to another. It will give practice in the search for specific information, and the skills developed through such activities will be useful in later years.

Toronto



Notes to the Teacher

The examples of learning activities which follow suggest ways of exploring various aspects of the road map. Three types of exercises have been developed. Their purpose is to encourage children to browse through the materials, develop skills in the use of the road map, and learn the geography of Ontario.

All students should work from the same map edition. In this pamphlet, the 1978/79 Ontario/Canada Official Road Map distributed by the Ontario Ministry of Transportation and Communications has been used for the exercises. Teachers using maps from other sources should ensure that the problems posed can be solved through the use of those maps. It may be necessary to revise some activities to accommodate other map editions.

Some teachers will prefer to use these exercises all at one time and in conjunction with work in environmental studies. Others will prefer to spread the road-map work over the year. The exercises could become an addition to the activity centre of the classroom.

It is not suggested that students complete all activities in one year: teachers can co-ordinate the exercises so that the child is exposed to new aspects of the road map each year.

This pamphlet does not purport to replace teaching strategies already developed by teachers; rather, it offers alternatives and is intended to make planning easier and more effective.

Learning Outcomes

It is expected that teachers will provide opportunities to better enable the child to:

- use the index to locate villages, towns, and cities in Ontario;
- obtain information from the map legend, for example, populations of communities, types of highways, boundaries, and locations of hospitals;
- reach conclusions about the locations of various communities in the province;
- calculate distances between communities using the distance chart, the local distance method, and the map scale;
- give directions from one point on the map to another;
- recognize a wide variety of traffic signs and classify them into meaningful groups;
- develop patterns of spatial distribution which will give an increased understanding of the geography of Ontario;
- organize information into a legible format that is easily understood;
- demonstrate the use of skills learned by applying them to real-life situations such as planning a vacation trip, or locating the nearest provincial park;
- work with others in solving problems and completing tasks;
- become more knowledgeable about our province, its geography, culture, and people.

Teachers are encouraged to adjust the expected learning outcomes listed above to match the expectations for the children in their classes.

Getting Underway

The exercises which follow have a common format: a problem is stated; a method of solving that problem is given; and additional problems of a similar nature are suggested.

Before beginning a formal study of the road map, the teacher should ensure that children have opportunities to:

- locate Ontario with respect to Canada and to the North American continent. Use atlas maps and wall maps to establish those relationships;
- realize that while the maps of Northern Ontario and Southern Ontario occupy the same amount of space on paper, the areas are, in reality, different in size. Refer to maps of Canada to support this idea;
- understand that Northern Ontario is divided into districts while Southern Ontario is divided into counties. The divisions are clearly indicated with solid green lines;
- examine the colours used on the map. Various colours have specific uses, for example, blue for water, red for certain types of roads, green and yellow for provincial parks, and buff for the bordering provinces;
- note that the typography is designed to assist the reader. The names of larger communities are printed in bigger type, red letters are used to indicate the location of provincial parks, and names of water bodies are printed in blue;
- browse through both sides of the map to note the wealth of information provided, for example, standard traffic signs, radio station call letters, telephone numbers of provincial police detachments, and sources of travel information;
- learn how to fold and look after the map.

After developing some familiarity with the road map, students should be ready to work with the problems that are set out in the following sections.

Problem

What are some of Ontario’s “est” locations?

Many of you are interested in records, for example, the largest city, the longest highway, and the highest point of land on the map.

- Browse through both sides of the road map of Ontario to find the answers to questions such as those given below.
- Compare your answers with those of another group of students.
- Make up one or two “est” questions yourself.

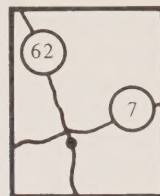
Other Typical Problems

1. Which community is located farthest north?
Which community is located farthest east?
Which community is located farthest south?
Which community is located farthest west?
2. Which is the longest highway in Ontario?
Which is the largest provincial park in Southern Ontario?
Which is the largest city in Ontario?
Which is Ontario’s largest district?
3. Name the Ontario community nearest to Port Huron, Michigan.
Name the Ontario community closest to Buffalo, New York.
Name the Ontario community nearest to International Falls, Minnesota.
Name the Ontario city nearest to Hull, Quebec.
4. Name the largest island found in Ontario.
5. Which highway takes you farthest north?

Fort Severn
Pointe Fortune
Pelee Island
Ingolf
Highway 17
Algonquin Park
Toronto
Kenora
Sarnia
Fort Erie
Fort Frances
Ottawa
Manitoulin
Highway 808

Problem

What community is located near the junction of Highways 7 and 62?

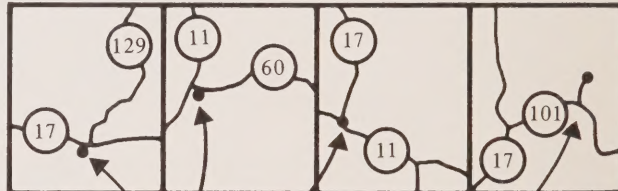


- Find Highway 7.
- Follow it with your finger until you come to the Highway 62 crossing.
- Find the community of Madoc just south of the junction.
- List the highways that are longer than Highway 7.

Many items of interest can be learned by simply browsing through the road map. The search for communities at the junctions of highways can lead to other interesting things along the way. (See also Highway Junctions.) Place names indicate early Indian, French, Scottish, Finnish, and English settlements. It is amazing to note the abundance of lakes in Northern Ontario. The concentration of population along and to the west of Lake Ontario is immediately noticeable.

Other Typical Problems

Use your highway map and the clues provided to locate the following communities. All of them are on, or close to, Ontario’s longest highways, 11 and 17:



- *Thessalon*
- *Huntsville*
- *Shabaqua*
- *Hawk Junction*

Using the Map Enlargements

Problem

Which route should a motorist use to reach the United States from Ontario at Windsor?

- The map enlargements provide more specific information for cities and regions where the Ontario map is congested.
- Find the map enlargement for the city of Windsor. The motorist may cross the Detroit River into the United States via the Ambassador Bridge or by using the Detroit-Windsor Tunnel. Both routes are clearly shown.

Other Typical Problems

- 1. Which highways take the motorist to the Botanical Gardens in Hamilton? 2, 6, 403
- 2. At which interchange will I leave Highway 401 to reach the Metro Toronto Zoo? 61A
- 3. Where in Timmins is the hospital located? Highway 101 at Spruce
- 4. Is there a travel information centre in London? yes
- 5. Where is the travel information centre in Thunder Bay? Red River Rd. at High
- 6. On which highway is Cobalt located? 11B
- 7. On which river is Sault Ste. Marie located? St. Marys River

Locating Cities, Towns, and Villages

Problem

Locate the village of Jacksons Point.

- The road map contains an index of cities, towns, and villages in Northern and Southern Ontario with the population figures given in brackets after the place name.
- Find Jacksons Point in the index of place names – it is at location 2 G 23.
- Look for the panel numbers given in grey boxes at the top of the index. Open the map (as you would a book) to panel 2.
- Find the large letter G on the vertical edge of the map.
- Find figure 23 on the horizontal edge of the map.
- Jacksons Point will be found in the rectangle formed by the guide lines from letter G and figure 23.

Problem

Locate the community of Marathon.

If the community is not listed in the index for Southern Ontario, try the index for Northern Ontario. Marathon is listed in the Northern Ontario index at location 8 M 09.

Other Typical Problems

- 1. Give the map location numbers for:
 - a) Lobo 1 L 20
 - b) Alban 9 Q 13
 - c) Nobleton 2 H 23
 - d) Yarker 3 G 28
 - e) Queenston 2 L 24
 - f) Wabaskang 6 J 03
- 2. Find the following communities on your map:
 - a) Delhi 2 M 21
 - b) Tobermory 1 D 19
 - c) Malachi 6 J 01
 - d) Thessalon 8 Q 11
 - e) Monkland 5 D 33
 - f) Winisk 8 B 10
- 3. On which rivers are the following communities located?
 - a) Walkerton Saugeen River
 - b) Caledonia Grand River
 - c) Rolphton Ottawa River



Sault Ste. Marie

Populations of Communities

Problem

Which town has a larger population, Omemee or Oil Springs?

- Find the communities of Omemee and Oil Springs in the index of place names for Southern Ontario.
- The index gives the population of Omemee as 758, and Oil Springs as 633.

Problem

Which is the largest community in Grey County?

- Find Grey County on the map.
- Check the size of print used for the various communities found in Grey County.
- Owen Sound is printed in the largest type. No other community name is printed in type of that size. We are led to believe, then, that Owen Sound is the largest community in Grey County.
- Exact figures can be obtained from the index. Owen Sound has a population of 19 282. Other large communities in Grey County include: Collingwood, 10 982; Meaford, 4 189; and Durham, 2 466.

You will note that the size of the type places communities into rough categories of population size.

Other Typical Problems

1. Which community in each of the following groups has the largest population?
- | | |
|-----------|----------|
| a) Kenora | 10 227 |
| North Bay | * 50 739 |
| Timmins | 44 261 |
| b) Whitby | 27 586 |
| Sarnia | * 55 038 |
| Orillia | 23 968 |
| c) Ottawa | 305 975 |
| Hamilton | *312 162 |
| Windsor | 196 512 |
2. Is Shelburne the largest community in Dufferin County? *no*
- Is Fort Frances the largest community in the District of Rainy River? *yes*
3. Use coloured map pins or gummed stars to locate every community in Ontario with a population of 25 000 and over.

Using the Map Legend

Problem

How do you use the map legend? What kind of information does it provide for a motorist?

The motorist is looking for answers to questions such as the following:

- Which route is the most direct, or the most scenic?
- Where is the nearest bridge to cross to the United States?
- Is there a provincial park in this area?
- Where is the nearest hospital or first-aid station?

If the motorist was at the town of Lucknow, the road map would suggest that:

- the nearest bridge to cross to the United States is at Sarnia;
- Highways 86, 21, and 7 provide the most direct route to Sarnia;
- he or she could camp at a number of locations, including Ipperwash Provincial Park;
- the nearest hospital is at Wingham.

Other Typical Problems

Working on the following problems will help the student to become familiar with the map legend.

1. There has been an accident near Longlac. Where is the nearest hospital located? *Geraldton*
2. Which interchange do you use to reach Brighton from Highway 401? *86*
3. Where is the nearest airport from Sturgeon Falls? *North Bay*
4. On what type of highway is Armstrong located? *gravel*
5. A bush pilot has an injured trapper in his airplane. Should he land at Big Trout Lake or at Bearskin Lake? *Big Trout Lake*
6. Is there a ferry service from Kings-ton to Wolfe Island? *yes*
7. Which lake is in view when a motorist travels on the “Blue Water” Tourist Route? *Lake Huron*
8. Are highways numbered in the 800 series maintained in the wintertime? *no*
9. Is Isle Royal in Canada or in the United States? *United States*
10. Where is the closest government campsite to Goderich? *Point Farms*
11. Where is the closest point of entry to the United States from the town of Dunnville? *Buffalo, N.Y.*

Highway Junctions

Problem

Are highways built to connect villages, towns, and cities, or do the latter develop at the junctions of existing highways? Are there communities located at all or most highway junctions? There are no ready answers to these questions. No doubt, many communities were founded before roads were built. We can suppose that the subsequent network of highways encouraged their development.

The following questions will help you to solve this problem.

1. Locate the following villages, towns, and cities on the map with the help of the index. List the highways that form junctions at these communities:

a) North Bay	11	17	63
b) Whitby	2	12	401
c) Sudbury	17	69	144
d) Perth	7	43	
e) Pembroke	17	41	62
f) Markham	7	48	
g) Smiths Falls	15	29	43
h) Maynooth	62	127	
i) White River	17	631	
j) Nipigon	11	17	

2. Is there a community at the following junctions along Highway 17? Answer yes or no.

a) 17 and 34	no	e) 17 and 656	yes
b) 17 and 44	no	f) 17 and 630	no
c) 17 and 41	yes	g) 17 and 63	yes
d) 17 and 62	yes	h) 17 and 64	yes

Calculating Distances

A. Using the Distance Chart

Problem

What is the distance between Belleville and Chapleau? – The distance between larger communities in Ontario can be found by using the distance chart in the lower left-hand corner of the map of Northern Ontario.

ATKOKAN		BANCROFT		BARRIE		BELLEVILLE		BLIND RIVER		BRANTFORD		BROCKVILLE		CHAPLEAU		CHATHAM		COCHRANE		CORNWALL		DRYDEN		ELLIOT LAKE		ESPANOLA	
1619		203																									
1505	203																										
1710	112	258																									
1043	605	462	667																								
1683	323	180	290	640																							
1727	264	409	159	714	430																						
819	852	718	924	247	896	975																					
1858	527	354	468	815	195	620	1072																				
930	692	621	771	549	800	798	309	974																			
1769	333	502	256	756	526	98	1030	715	840																		
430	1744	1650	1845	1188	1828	1872	964	2002	1075	1913																	
1150	605	459	669	62	639	716	319	813	561	769	1249																
1144	512	369	574	100	547	621	347	722	468	664	1288	100															

– Find Belleville and Chapleau on the chart.
– The distance between these two communities can be found by reading down the Belleville column and across the Chapleau column to arrive at the figure in the rectangle formed where the two columns cross each other (924 km).

Other Typical Problems

1. What are the distances between the following communities?

a) Chatham and Kingston	544 km
b) Toronto and Timmins	689 km
c) Rainy River and Sarnia	2 065 km
d) Barrie and Windsor	435 km

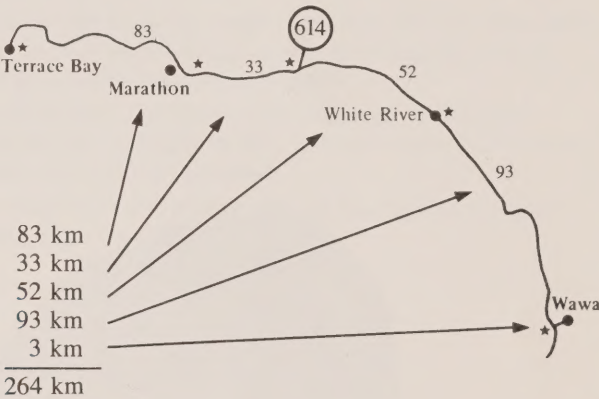
2. Approximately how many hours will it take to travel from Sault Ste. Marie to Stratford at an average speed of 80 km/h? 10 hours

3. Which is the shorter route from North Bay to Kingston
a) via Pembroke and Smiths Falls, or *467 km
b) via Peterborough and Belleville? 507 km

B. Using the “Black Stars”

Problem

What is the distance between Terrace Bay and Wawa? – Distances between smaller communities can be found by using the “black stars” found at the junctions of highways. The distance between Terrace Bay and Wawa is 264 km, arrived at by adding the following local distance figures:



Other Typical Problems

1. Calculate the distance between the following locations:

a) Leamington and Blenheim	61 km
b) Courtright and the junction of Highways 80 and 79	54 km
c) Tobermory and Owen Sound via Highways 6, 70, and 21	110 km
d) Tobermory and Owen Sound via Highways 6 and 21	116 km

2. Which is the shorter route from Goderich to Lucknow
a) via Port Albert and Amberley, or *53 km
b) via Clinton and Wingham? 73 km

C. Using the Distance Scales

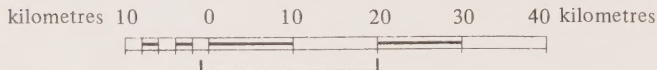
Problem

A group of people with snowmobiles would like to travel from Baysville across the lake to Birkendale and back. What distance will they cover on the round trip?

- Find Baysville and Birkendale on your map.
- Find the distance scales in the map legend. (*Note:* This is the scale for Southern Ontario. The scale for Northern Ontario is located on the reverse side on Hudson Bay.)



- Place a strip of paper on the map to join the two communities.
- Mark the locations on the strip with dots.
- Join the dots with a straight line.



- Place the strip below the distance scale so that the right-hand dot is aligned to a frame on the scale.
- The distance from Baysville to Birkendale is 20 km + 1 km (to the left of the zero), or 21 km. Therefore, the snowmobiles will cover 42 km on the round trip.

Other Typical Problems

1. How many communities are found within a radius of 30 km from Lion's Head?

16

2. How long would it take to snowmobile across Lake Nipigon from Ferland to Macdiarmid at a speed of 12 km/h?

9 hours

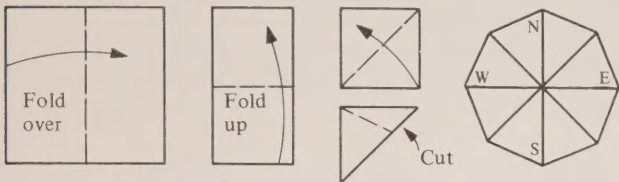


Finding the Direction

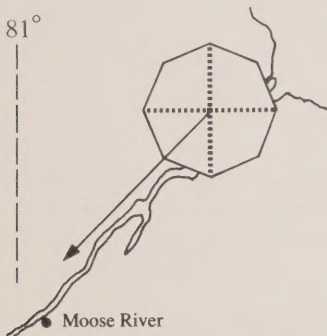
Problem

In what direction is Moose River from Moosonee?

— Take a square sheet of paper about 6 cm by 6 cm. As shown in the diagram below, fold it in half, then in quarters, and then diagonally in eighths. Round the free edges using a pair of scissors. Unfold the sheet, flatten it out, and mark the folds: N, NE, E, SE, S, SW, W, and NW.



- You now have a “compass rose” that will help you give the approximate direction of one point from another.
- Find the light vertical line a little to the west of Moosonee that has the number 81° at its upper limit. This is a line of longitude and runs north-south.
- Lay the compass rose with its centre over Moosonee so that the north-south line is parallel to the 81° line of longitude. Read off the direction of Moose River.
- Moose River is southwest of Moosonee.



Other Typical Problems

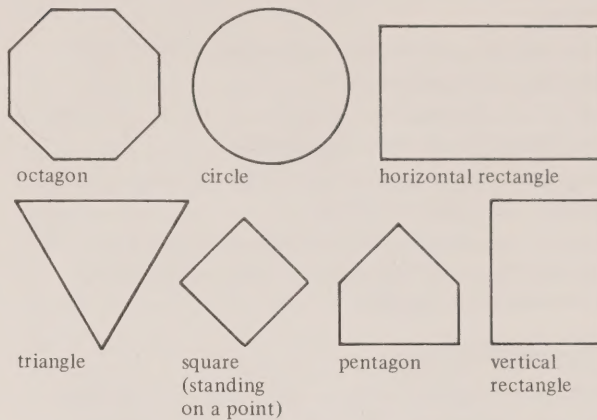
1. In what general direction does the Albany River flow?
east to northeast
2. In what direction is Thunder Bay from Dryden?
southeast
3. Name the community 14 km northwest of Maynooth.
Lake St. Peter

Traffic Signs

Problem

Identify and explain the different traffic signs.

Examine the different types of traffic signs and what they mean. The recognition of their shapes and symbols is valuable. Look for the following shapes:



Refer to *The Driver's Handbook*, a free publication of the Ontario Ministry of Transportation and Communications; it has an excellent section on traffic signs.

Other Typical Problems

1. Draw the following shapes and insert one sign associated with each of them: triangle, square (standing on a point), octagon, circle, pentagon, rectangle.
2. Draw and colour each of the following traffic signs: stop; bump; yield right of way; no U turn; school area; truck route; maximum speed ahead.
3. Draw three traffic signs that use symbols. Draw three traffic signs that use words.



Problem

Many of the villages, towns, and cities of Ontario are located on water, especially at the junctions of rivers or at river mouths. Why were these locations favoured by the early settlers?

- Make a list of about twenty communities scattered across the province.
- Use the map to locate these communities and note how many of them are located on water.
- Check which communities are located on lakes, on rivers, at the junctions of rivers, or at river mouths.
- Use other sources of information to find out how each community relies on its waterways.
- Select two communities. Find out why each one was established at that particular location. Share your findings with other students in the class.

Other Typical Problems

1. Use the map index to locate the following communities. The map enlargements will be useful too. List the body or bodies of water associated with each community:

- | | |
|---------------------|---------------------------|
| a) Sault Ste. Marie | <i>St. Marys River</i> |
| b) Brockville | <i>St. Lawrence River</i> |
| c) Windsor | <i>Detroit River</i> |
| d) New Liskeard | <i>Lake Timiskaming</i> |
| e) London | <i>Thames River</i> |
| f) Kenora | <i>Lake of the Woods</i> |

2. The production of pulp and paper requires a lot of water. Name the source of water for the mills at:

- | | |
|-------------------|---------------------------|
| a) Kapuskasing | <i>Kapuskasing River</i> |
| b) Iroquois Falls | <i>Abitibi River</i> |
| c) Cornwall | <i>St. Lawrence River</i> |
| d) Thunder Bay | <i>Lake Superior</i> |

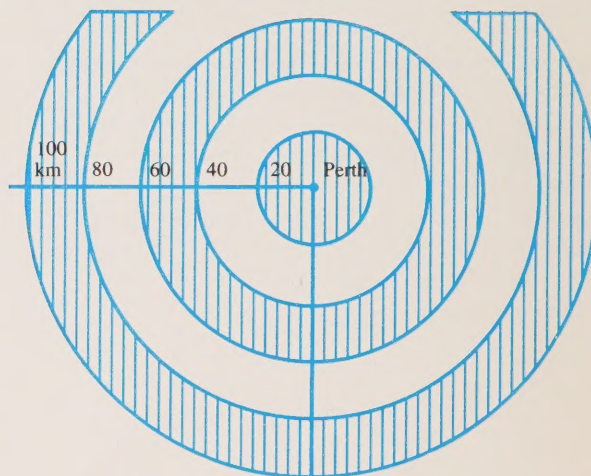
3. Ontario has many important ports. Name the body of water on which each of the following ports is located:

- | | |
|------------------|------------------------|
| a) Toronto | <i>Lake Ontario</i> |
| b) Kingston | <i>Lake Ontario</i> |
| c) Collingwood | <i>Nottawasaga Bay</i> |
| d) Sarnia | <i>St. Clair River</i> |
| e) Hamilton | <i>Lake Ontario</i> |
| f) Port Colborne | <i>Lake Erie</i> |

Problem

How is the rest of Ontario related in distance and direction to your home town? What activities take place in other communities that affect you?

- Pin up the road map on the bulletin board. Indicate your home community, for example, Perth, with a map pin.
- Draw a series of concentric circles around the community on a piece of acetate or on the map itself; use bold lines. The radii of the circles should increase at a constant rate, possibly 20 km, 50 km, or 100 km. Extend the circles to include as much of Ontario and the neighbouring states and provinces as you wish.



– Working in a small group, be responsible for one of the rings. Be ready to give directions and distances to major communities within the ring, possible sources of income, tourist attractions, items of historical interest, and so forth.

– Each student in the group can be responsible for a quadrant of the circle assigned to the group.

Other Typical Problems

1. Draw a circle around your community to show the radius within which you can travel by automobile in one hour. Show the location of all winter and summer recreational opportunities, for example, places to skate, ski, fish, and swim.
2. Complete a chart that will give information about all communities with a population of 1000 and over which are within a radius of either 25 km, 50 km, or 100 km of your village, town, or city.

A Review

Are students able to use the Ontario/Canada Official Road Map to find specific information? Can they use it to plan trips and to learn more about the province?

- Draw up a series of questions to review various aspects of road map usage.
- Have students plan in detail the next field trip that will be undertaken.
- Consider some of the practical uses of the map by placing the map work within the context of actual situations.*
- Determine what has been learned about the geography of Ontario from the exercises through discussions or research assignments.

Thunder Bay



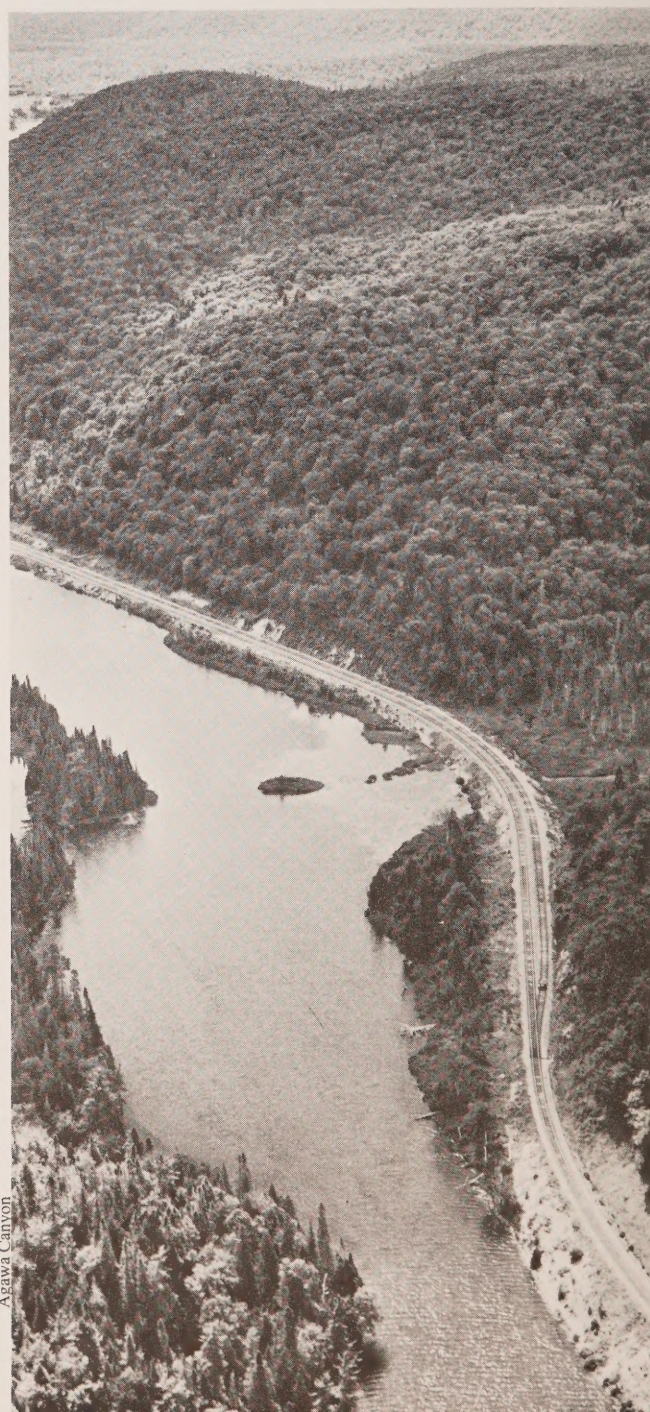
Review Problems

1. Use the highway map and your atlas to list the provinces and states that border on Ontario.
2. State four major differences in the regions represented by square D-8 and square K-20. (*Note:* It is hoped that some students will realize that D-8 represents a larger land area than that represented by K-20.)
3. Which highway is longer, 401 or 11?
4. Which community has the larger population, Cochrane or Ingersoll?
5. Which community is farther west, Arthur or Alma?
6. What are the call letters of the radio station at Parry Sound, and where on your radio would you tune in to hear this station when travelling in the vicinity?
7. What is the telephone number of the Ontario Provincial Police District Headquarters at Thunder Bay?
8. What is the distance and direction of Newmarket from Lindsay? Is it possible to drive that distance safely in two hours (highway speed limit 80 km/h, speed limit in towns and cities 50 km/h)?
9. What route would take you from Lindsay to Kingston in the shortest time?
10. Name the provincial parks within a one-hour driving distance from St. Thomas.
11. Is there an island located at 53°N latitude, 81°W longitude in Ontario?

Future Topics

Consider some of the following ideas:

- Prepare additional exercises based on other aspects of the Ontario/Canada Official Road Map: the legend, map inserts, and other sections of specific information.
- Prepare exercises based upon road maps from other provinces of Canada.
- Have students use atlas maps to gain new insights into the geography of Ontario: its location, boundaries, length (from north to south), width, and neighbours.
- Develop students' understanding of large numbers associated with the province: a population of 8 000 000, an area of 1 068 528 km², and a highway 2155 km in length.
- Have students use colourful map pins to locate: every toll bridge in Ontario; every provincial and national park; and every town and city with a population of 10 000 or more.
- Have each student make a list of thirteen things that everyone should know about Ontario. Compile the information into a booklet and distribute it to the class.
- Have students learn more about driving on Ontario's highways by using the free publication *The Driver's Handbook*, available from the Ministry of Transportation and Communications.
- Have students design a tourist brochure about their community.
- Have students plan a field trip that might be taken by the class. Give such information as the route they would take, the time required, rest stops, and places to visit on the way.



Agawa Canyon